PROVINCE OF SASKATCHEWAN

09-10

ANNUAL REPORT

SASKATCHEWAN HEALTH INFORMATION NETWORK

An Agency of the Ministry of Health

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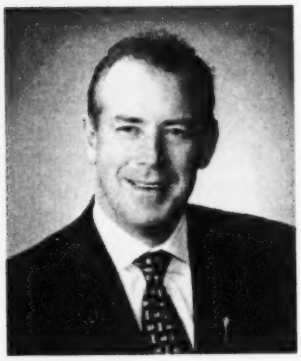
This annual report is also available in electronic format from the Ministry's website at **www.health.gov.sk.ca/shin-annual-reports**

Letter of Transmittal - Minister



July 31, 2010

The Honourable Dr. Gordon L. Barnhart, S.O.M., Ph.D.
Lieutenant Governor of Saskatchewan

May it please Your Honour:

The Government of Saskatchewan is committed to delivering on the promises made to the people of Saskatchewan through our election platform; the fall 2009 Speech from the Throne; Ministers' Mandate letters and the 2009-10 Budget.

One of those promises is a commitment to increased transparency and accountability. The 2009-10 Saskatchewan Health Information Network (SHIN) Annual Report details progress made by SHIN as of March 31, 2010.

Government has defined its direction for ministries and agencies and has communicated this direction through vision and goals released with the 2009-10 Budget. Ministries and agencies have aligned with this direction and have developed strategies and actions to help deliver on government's plan for Saskatchewan – to be Strong and Steady in the years to come.

Our province is building a secure, integrated provincial eHealth system. The benefits are enormous in improving patient safety; reducing wait times and duplicate testing; providing better tools for our health human resources; improving planning and increasing financial accountability for the health care system.

Providing the best workplaces equipped with the right tools to support health care decision-making and treatment will strengthen recruitment and retention efforts and enable the province to increase the number of health care providers choosing to work here.

I am proud that our Saskatchewan-born solutions, our ability to share with other provinces, and our careful planning and resource management, have positioned us so well in the country. High praise has been received from Canada Health Infoway noting that Saskatchewan's approach is innovative and worthy of replication.

I respectfully submit the Annual Report of the Saskatchewan Health Information Network (SHIN) for the fiscal year ending March 31, 2010, including the financial statements duly certified by auditors for the Corporation in accordance with *The Crown Corporations Act, 1993.*

Honourable Don McMorris
Minister of Health

Letter from the Board Chair

June 29, 2010

The content of this report has been thoroughly reviewed. I accept responsibility for this report and offer assurance for the accuracy and reliability of the information contained in it. This report is restricted to the activities and operations of the Saskatchewan Health Information Network (SHIN). The interpretation embedded in the reporting reflects the best judgment of the SHIN executive.

Better information will lead to better care. A provincial electronic health record (EHR) will improve the management of chronic illnesses; reduce wait times by speeding up the flow of information; and reduce the number of adverse reactions to drugs that patients suffer while in hospital or in the community. It will dramatically improve communications between health care providers, provide better access to care, and speak for patients in situations when they cannot speak for themselves.

In the course of the Patient First Review, Saskatchewan residents repeatedly provided examples of misplaced, unavailable, or scattered health information and consequent errors, adverse events and duplication of costly and/or painful tests and procedures. In response, the EHR will be an important tool to securely communicate and store patient information.

As an important Ministry of Health partner, SHIN is working with regional health authorities to evaluate priorities and identify next steps for the implementation and operation of the EHR. Together with health sector stakeholders, SHIN has already developed and put into operation a number of the building blocks that will ultimately allow the province to create a provinciai EHR including laboratory, pharmacy, admission and diagnostic imaging systems. Successful implementations to date include:

- The Picture Archiving and Communications System (PACS) has been implemented in Saskatoon, Swift Current, Lloydminster, North Battleford, Moose Jaw and Prince Albert with Regina and Yorkton coming on-line in 2010-11.
- Pharmacy Information Program (PIP) - All prescription drug information for medications filled in all Saskatchewan community pharmacies is captured in a central repository and can be securely accessed from anywhere in province. Currently the PIP system securely stores 45 million prescription records.
- Integrated clinical systems in regional health authorities bring together patient lab, diagnostic imaging, pharmaceutical and other clinical information across the region. The Regina Qu'Appelle Health Region has implemented systems that allow this information to be accessed by any authorized health provider in the region.
- 92 Telehealth sites now support clinical care throughout the province. These systems use high-end videoconferencing technology to link specialists and patients in remote communities as an alternative to in-person appointments.
- Secure distribution of laboratory results to physician electronic medical record systems in Regina and Saskatoon.

These are only the first steps; SHIN will expand into other areas. This annual report provides additional information about SHIN's progress in 2009-10.

To ensure that SHIN's future achievements continue to meet the needs of the health system, a provincial eHealth council has been established with representation from health providers (e.g. nurses, physicians, pharmacists), regional health authorities and the Health Quality Council. eHealth Council will provide long-term strategic direction for eHealth investment in our province and provide the framework for monitoring overall progress on the development of a provincial EHR.

SHIN resources are distributed in three main ways. Of the $288 million spent since 1997: eight per cent has been used to develop secure broadband internet access for the health sector (CommunityNet); 46 per cent has been spent on operations (including support desk, hosting and provincial data centre); and, 46 per cent finances major clinical health information technology (IT) projects implemented in the health sector.

Through careful planning and resource management, Saskatchewan has achieved significant progress with investments that are much lower than other provinces.

Saskatchewan residents expect the best medical treatment possible. Their physicians and clinicians expect to care for them using the most current practice available. Authorized health professionals must have secure access to the right information, at the right time and place. Forward thinking in eHealth will attract and retain specialized health care providers including physicians and other health providers who have trained on eHealth solutions. A province-wide EHR will also be critical in supporting other government priorities including: the recently announced physician recruitment and retention strategy; the surgical access initiative; and, a rural health strategy.

SHIN is committed to creating a provincial EHR that will change the current reality. It is our vision that an integrated provincial EHR will be available for all Saskatchewan residents by 2013-14.

Reflecting on the past year, I would like to thank staff and all of our partners and stakeholders for their hard work and dedication to moving eHealth forward in this province. I anticipate another exciting and productive year in 2010-11.

Max Hendricks
Board Chair - SHIN

Letter from the CEO

Development of the provincial electronic health record (EHR) continued at a steady pace in 2009-10. The release of the Patient First Review was an important milestone, both in setting the next stages of health system transformation in Saskatchewan and validating the critical importance of sharing patient information securely across the health care system.

Through the Patient First Review, Saskatchewan patients, families and care providers identified the need for a 'one patient-one record' electronic health information system. When every Saskatchewan patient has a secure, up-to-date health record that is accessible to authorized care providers anywhere in the province, the result will be less duplication of tests and procedures, fewer errors in sharing important information, less long-distance travel for residents of rural and remote communities, and safer, higher-quality care.

Jurisdictions across Canada and around the world are at various stages of developing and implementing EHRs, which will be a standard of all contemporary health-care systems in the near future. With patient safety and health-record security at issue, and the sophistication of technology employed in banking and other sectors, patients and families are becoming less tolerant of antiquated, duplicative and unreliable health-information management practices.

A number of electronic health information systems have already been developed in Saskatchewan and are being used by various health-care providers. However, a centralized EHR is necessary to integrate these systems so that they produce visible and tangible everyday benefits for patients and families, no matter where in the province they are accessing health services. A 'one-patient, one-record' system may be the single most significant health-care improvement, with the most benefits to the most patients, that government could make in the short-term.

The province continues to have three major areas of health IT investment that together will create the provincial EHR. Many systems are already in place and the next three to five years will see the last major components implemented and the integration of all systems to allow province-wide sharing of clinical information. These three areas of investment include:

- Provincial EHR projects/initiatives
- Point of Service Systems in regional health authorities
- Electronic medical records for physicians/primary health care providers

The formation and work of the provincial eHealth council will provide long-term strategic direction to the health sector and this work will provide the provincial blueprint for ongoing investment and priorities for the EHR in our province.

Scott Livingstone
Chief Executive Officer - SHIN

Introduction

This annual report presents the Corporation's activities and results for the fiscal year ending March 31, 2010. It reports on public commitments made and other key accomplishments of the Saskatchewan Health Information Network.

The 2009-10 SHIN Annual Report follows a similar format to the 2008-09 SHIN Annual Report and includes the Government's vision and three goals.

The first part of this report outlines the project and program areas of the province's developing electronic health record (EHR) and the systems that glue them together.

The second part of the report tells the story of the "behind-the-scenes" electronic systems that make up the electronic network for the Ministry of Health and health stakeholders in the province, including the health regions.

The final section of the report reflects the financial position of SHIN.

Alignment with Government's Direction

The Saskatchewan Health Information Network's 2009-10 Annual Report aligns with Government's vision and goals.

Our Government's Vision

A secure and prosperous Saskatchewan, leading the country in economic and population growth, while providing a high quality of life for all.

Government's Goals

- Sustain economic growth for the benefit of Saskatchewan people, ensuring the economy is ready for growth and positioning Saskatchewan to meet the challenges of economic and population growth and development.
- Secure Saskatchewan as a safe place to live and raise a family where people are confident in their future, ensuring the people of Saskatchewan benefit from the growing economy.
- Keep Government's promises and fulfill the commitments of the election, operating with integrity and transparency, accountable to the people of Saskatchewan.

Together, all ministries and agencies support the achievement of Government's three goals, and work towards a secure and prosperous Saskatchewan.

Saskatchewan eHealth projects improve patient care by providing better more timely information for decision-making at the point of care. SHIN supports our Minister's mandate to improve publicly funded health care and to recruit and retain health care providers.

Organizational Overview

The Saskatchewan Health Information Network (SHIN) was created as a Treasury Board Crown Corporation in 1997 and is accountable to Cabinet through the Minister of Health. Legislative authority is provided by *The Crown Corporations Act, 1993.*

SHIN is funded in part by the Saskatchewan Ministry of Health and managed by the Health Information Solutions Centre (HISC), a branch of the Saskatchewan Ministry of Health.

SHIN has no employees; all work is carried out through HISC personnel or contracted resources.

No significant changes to the structure or mandate of SHIN were made during 2009-10.

Please see the organization chart found in Appendix I.

SHIN contributes to an efficient, effective and sustainable health system by building an EHR which ensures:

- residents' health information is accessible to health care providers regardless of the location where residents seek care;
- an enhanced quality of patient care by supporting health professionals' decision-making through improved access to the information they require;
- a safer work environment for health system employees; and,
- a more dynamic environment to recruit and retain recent graduates into the Saskatchewan health system by implementing up-to-date technology.

Key partners of SHIN are:

- patients;
- the Ministry of Health;
- regional health authorities;
- Saskatchewan Medical Association;
- organizations representing health care professionals (health providers); and,
- Saskatchewan information technology contracting companies.

Mandate

The key roles of SHIN are:

- to deliver an electronic health record for Saskatchewan citizens;
- to provide information management and technology services to regional health authorities and other health service providers and delivery agencies within Saskatchewan; and,
- to support health sector initiatives, provide a province-wide health information network and secure centrally-hosted health care applications in the SHIN data centre.

Mission and Values

Through a collaborative effort, SHIN ensures health professionals have secure access to the right information, at the right time and place.

Mission

- enhance the quality of patient care by supporting health professionals' decision-making at the point of care through improved access to the information they require;
- improve the patient experience by supporting improved coordination between service delivery care providers. Provide high levels of security and privacy safeguards to support the exchange of information between care providers;
- improve overall efficiency, effectiveness and sustainability of the health sector through the innovative use of technology; and,
- inform health system decision-making by providing the necessary information base to support planning, outcome measurements, accountability and research.

(continued)

Organizational Overview

Values

We believe in:

- excellence through innovation, creativity, continuous learning and recognition of achievements;
- honesty, integrity, openness and respect for all of our relationships;
- collaboration and teamwork;
- actions which are client-centered and results-oriented;
- security of information and privacy of individuals;
- equitable access to information for our customers; and,
- fostering development of information technology in the Saskatchewan health care sector.

Progress in 2009-10

Health Sector Priorities

eHealth tools, created through SHIN, respond to the priorities and plans of the Ministry of Health, eHealth council, regional health authorities and other stakeholders.

SHIN provides strategic leadership and project management support to define, coordinate and implement health information technology solutions.

Regional health authorities have identified the following health sector priorities:

- applications;
- communicable disease management;
- continued roll-out of Integrated Clinical Systems;
- data quality, reporting & decision support;
- diagnostic imaging;
- improved prescribing & patient safety;
- primary health care;
- provincial registries & systems;
- Saskatchewan Surgical Care Network; and,
- Telehealth & video conferencing.

The Interoperable Electronic Health Record - Progress by Core Business Area

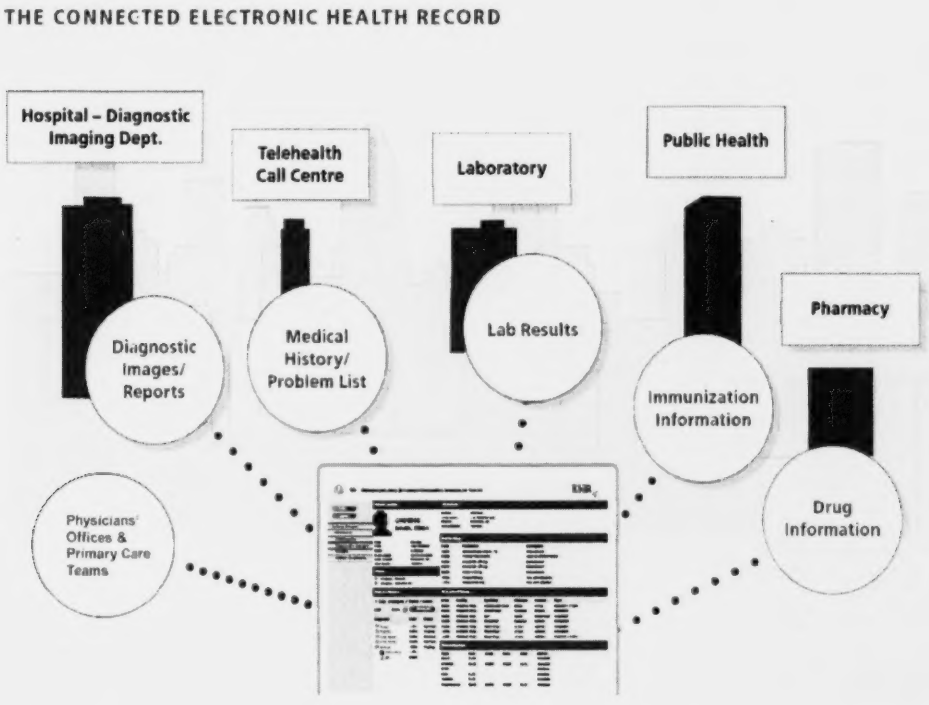
An interoperable electronic health record (EHR) provides a secure and private lifetime record of an individual's key health history and care. It provides a longitudinal "cradle to grave" view of clinical information.

Projects combine with registries and data warehouses to create the EHR. (Figure 1)

The EHR has three parts:

1. projects and data repositories;
2. provincial registries and access layer (the glue that holds the EHR components together); and,
3. provider systems (user access points).

Figure 1: The Integrated Electronic Health Record (EHR)



(Image source - Canada Health Infoway)

Progress in 2009-10

Integrated Systems

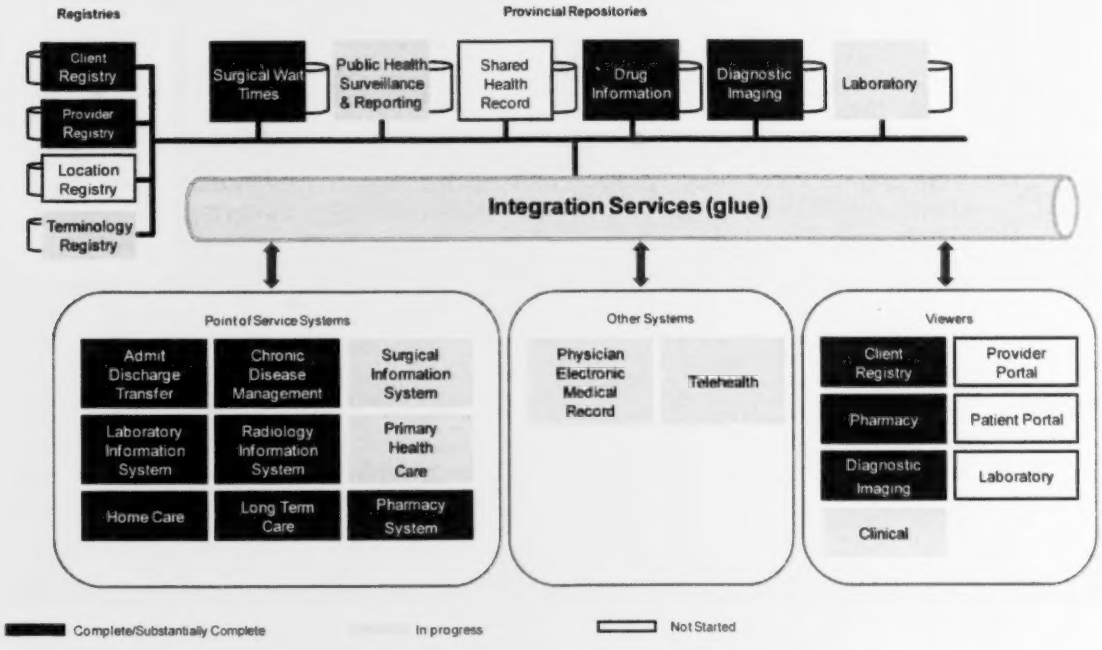
As noted on page 12, the EHR is not one system but rather a group of systems which together securely store the health information of an individual.

By focusing efforts to date on implementing electronic solutions in tertiary and regional hospitals where approximately 80 per cent of the province's population receives care, SHIN has achieved maximum effect for funding spent. Based on the implementation of the systems reflected in the diagram below, the one patient-one record EHR is approximately 20 per cent complete. While there are a large number of systems complete or in progress, integration services (the glue) that will connect these systems together is in the early stages of development.

The electronic distribution of laboratory results to some physician electronic medical records (EMRs) in Regina and Saskatoon, which began in 2009-10, marks the beginning of integration.

Figure 2 below is a summary diagram of the systems currently planned, in progress or complete/substantially complete.

Figure 2: The Integrated Electronic Health Record (EHR)



Progress in 2009-10

Putting the Patient First

There are many ways in which components of the EHR, either completed or in progress, contribute to patient-centred care in the province. Some examples are:

- Diagnostic Imaging Repository - reduces duplication of tests and allows a specialist who may be in another location to remotely and securely review the digital image and consult with a local physician regarding a treatment plan;
- Drug Information Repository – identifies duplicate prescriptions and drug interactions before a prescription is filled;
- Clinical Viewer – now operational in both the Regina Qu'Appelle and Sunrise Health Regions. Securely brings five point-of-service systems together into a common viewer, so all region information on a patient is accessible to authorized physicians and caregivers in each region;
- Telehealth – Using live, two-way video-conferencing enables a patient to 'visit' with health care providers while in a location closer to home rather than having to travel.
- Physician electronic medical records – some Regina and Saskatoon physician offices are receiving laboratory results electronically, resulting in physicians providing more timely care to patients.

The 2009-10 accomplishments related to the operations of SHIN are detailed in the following pages.

EHR Part I - Projects and Data Repositories (EHR Components)

Provincial RIS – PACS (Diagnostic Imaging) Project

The Saskatchewan Radiology Information System (RIS) Implementation Project is a computer system for tracking patients and medical imaging procedures including exam scheduling, result reporting and billing. The RIS interfaces with existing hospital information systems to securely capture patient demographics and the orders used to schedule and complete the exam. As exams are completed, a radiologist will interpret the images and record the results in the RIS. The RIS interfaces with the Picture Archiving and Communication Systems (PACS) to link images and the interpreted results, making both available to authorized users.

The Saskatchewan Picture Archiving and Communication System (PACS) interfaces with the medical imaging device (i.e.: X-ray, CT scan, MRI, ultrasound, etc.) to capture the digital image. Once captured, the image can be stored, archived and securely shared over a computer network eliminating the use of traditional film as a presentation and storage medium.

In 2009-10 the Provincial RIS - PACS Project:

- implemented the RIS in the Lloydminster Hospital in April 2009 followed by implementation of the PACS. The Lloydminster Hospital began film-less operation in June 2009. In September 2009, the Lloydminster Hospital PACS was upgraded to a newer version of the software, resulting in additional functionality being available to clinicians;
- implemented the RIS in the Moose Jaw Union Hospital in October 2009. The Moose Jaw Union Hospital began film-less operation in November 2009;
- as of March 31, 2010, there were 681,528 studies and 60,746,018 images securely stored in the provincial PACS system.

Pharmaceutical Information Program (PIP) Drug Information System

The Pharmaceutical Information Program (PIP) manages medication information in the province. The primary goal of PIP is to improve quality of care by providing the information and tools needed to make optimal drug therapy decisions.

In 2009-10 PIP completed these steps to integrate with electronic systems in retail pharmacies:

Progress in 2009-10

- two pharmacy systems completed CeRx system testing with the Saskatchewan Drug Information System (DIS), and undertook their first conformance test with SHIN to receive approval to implement their PIP integrated software in Saskatchewan pharmacies;
- one pharmacy system continues to test their CeRx software upgrade against the Saskatchewan Drug Information System (DIS);
- continued dialogue with other pharmacy systems vendors operating in Saskatchewan and opened dialogue with EMR software vendors about integration with their systems; and,
- upgraded the PIP software to resolve issues that the vendor systems were encountering during their system testing, and identified new enhancements needed in 2010-11 to enhance the clinical information contained in the CeRx messages for pharmacies and physician offices.

Public Health Surveillance - Pan-Canadian Electronic Public Health Surveillance (Panorama)

Panorama was designed to manage public health concerns such as severe acute respiratory syndrome (SARS) and pandemic influenza, both within and across provinces.

Panorama supports the daily operational needs of population health management including: immunization, communicable disease, outbreak management, inventory management, workflow management, and notification management.

In 2009-10 the Panorama Project:

- began planning the Saskatchewan implementation of Panorama. Detailed business and technical requirements were documented; risk management practices were planned and put in place; an application vulnerability (AVERT) assessment was completed;
- established a Saskatchewan Panorama Steering Committee, made up of ministry and regional health authority public health and information technology representatives, that will direct the project through to implementation;
- continued Saskatchewan's role on the pan-Canadian steering committee and the jurisdictional implementation, business, and technology working groups and supported the product development, testing, and enhancement activities of the build team; and,
- began work with First Nations representatives to plan for deployment to First Nations communities in the same time frame as the provincial roll-out.

Saskatchewan Laboratory Results Repository Project (SLRR)

The Saskatchewan Laboratory Results Repository Project will provide timely and accurate laboratory test results to physician office computer systems and other secure locations using pan-Canadian standards.

In 2009-10 the SLRR Project:

- implemented the service to electronically distribute laboratory test results from the Saskatoon and Regina Qu'Appelle Health Regions to physician office systems. Two physician offices (a total of 16 physicians) were implemented in February and March as pilots. Both pilots were successful. The general roll-out to physician offices will continue through 2010-2011;
- completed the interface conformance testing for one EMR vendor and performed two conformance tests with a second vendor; and,
- completed the design and software development for the second release of the laboratory test result distribution service. This release will make results from the Saskatchewan Disease Control Lab and the Sunrise Health Region Lab available to physician office computer systems (in addition to those from the Saskatoon and Regina Qu'Appelle Health Regions).

Progress in 2009-10

The Saskatchewan Disease Control Laboratory (SDCL) Lab Information Management System (LIMS)

A lab management system manages daily lab volumes and generates results on a timely basis.

The Saskatchewan Disease Control Laboratory (SDCL) requires a robust information system capable of meeting its technical and operational needs. The current Lab Information Management System (LIMS) was not meeting these objectives and a replacement solution was procured.

In 2009-10 the LIMS Program:

- completed the implementation of the clinical components of the Lab Information Management System (LIMS);
- refined clinical components to address immediate, post go-live issues and evolving business requirements;
- interfaced new analyzer instruments in preparation for implementation in the new SDCL building in Regina; and,
- began work on the strategic 'roadmap' to guide future release development and integration into SLRR .

EHR Part II - Registries and Access Layer (The EHR "Glue")

The Health Information Access Layer (HIAL)

The HIAL provides security, integration and consent software through which health data is securely transmitted between data repositories and users. In addition to its data transmission role province-wide, this layer will eventually connect the Saskatchewan provincial EHR to the pan-Canadian EHR.

In 2009-10 the following was completed:

- identity-management proof-of-concept to enable secure identification of users from a variety of source systems; and,
- a plan for staged implementation.

The Provider Registry System Project (PRS)

The Provider Registry System stores and manages data about health care providers in Saskatchewan and confirms that users of electronic health systems are authorized.

The PRS is the registry for health care providers licensed or registered by (but not limited to) the:

- College of Physicians and Surgeons of Saskatchewan,
- College of Dental Surgeons of Saskatchewan,
- Saskatchewan College of Pharmacists, and,
- Saskatchewan Registered Nurses' Association.

Person Health Registration System (PHRS) Replacement Project

The Person Health Registration System is used to issue health services numbers (HSN) and plastic health cards used at health care facilities in the province.

The project replaces the current PHRS.

In 2009-10, the Person Health Registration System Replacement Project:

- completed formal acceptance testing;
- completed acceptance testing of all interfaces to other systems and agencies; and,
- was implemented successfully into production on March 1, 2010.

EHR Part III - Provider Systems (EHR Access Points)

Integrated Clinical Systems (ICS) Implementations for Health Regions

ICS enables authorized health care providers to use an electronic viewer to quickly and securely access a summary of a patient's unique identifying information and relevant health information.

Progress in 2009-10

ICS consists of a series of inter-related systems:

- CPI/Registration - registration of patients/ clients as well as visit history by regional health authorities;
- Lab Information System - management of patient lab tests such as bloodwork and microbiology;
- Pharmacy Information System - ordering and filling of hospital based prescriptions;
- Home Care - management of all aspects of a patient's/client's home care needs including in-home assessment and home care services provided;
- Transcription - management of documents produced during a patient's hospital stay such as consultation notes and discharge summaries; and,
- Clinical View - amalgamation of all electronic health information into a single, secure view used by physicians and nurses to provide enhanced patient care.

In 2009-10, the following were completed:

- Home Care - implementation of the Home Care assessment component for the Five Hills Health Region; and,
- Clinical View - provide additional software licenses required for enhancements in the Regina Qu'Appelle Health Region including:
  - roll-out of the emergency room tracking board in the Regina General Hospital; and,
  - physician and nursing documentation;
- finalized planning for implementation of emergency room tracking boards in both the Sunrise and Prince Albert Parkland Health Regions.

The Laboratory Information System (LIS) Replacement Project

The LIS system facilitates the ordering of lab tests for patients, managing lab test data throughout the lab processing cycle; and generating and distributing result reports to clinicians, wards and other agencies.

The project will replace the current regional Laboratory Information Systems as the system will no longer be supported after February 2012.

In 2009-10 the Laboratory Information Replacement Project:

- completed vendor training for workload and quality control modules for Sunrise, Kelsey Trail and Five Hills Health Regions;
- completed the build and verification of all technical environments for the Sunrise Health Region;
- completed all functional and technical testing of the new LIS system in the Sunrise Health Region; and,
- began file builds and instrument set-ups in both Kelsey Trail and Five Hills Health Regions.

Patient Access to Quality Care Project (PAQC)

PAQC enhances and replaces the Chronic Disease Management Toolkit (CDM Toolkit). The CDM Toolkit was implemented in 2006 to support the Health Quality Council's Chronic Disease Management Collaborative providing clinicians with the ability to document clinical observations for their patients with chronic conditions and providing prompts for tests and appointments that were due. The original implementation of the Toolkit supported diabetes and coronary artery disease chronic conditions; this will continue.

In 2009-10 the PAQC Project:

- implemented two new software releases providing flowsheets and relevant reporting for chronic obstructive pulmonary disease (COPD) and depression;
- upgraded the technical infrastructure;
- added data quality and sustainability enhancements to the application;

- completed the development of HL7 V3 message specifications for Chronic Disease Management, including a gap analysis with the existing CDM Toolkit; and,
- enabled the use of the CDM Toolkit by users who are not participants in the HQC CDM Collaboratives, effectively opening it up to all qualified clinicians in the province.

Electronic Medical Record (EMR)

An EMR is a secure computer-based system that enables the development of an electronic record of patient health information (also called an electronic medical chart).

The information collected may include demographics, medical conditions and diagnoses, medications, immunizations, laboratory data, radiology reports, and other medical information.

An EMR also allows primary care practices to set up flowsheets containing cues to help focus the visit.

It allows physicians to bill for services electronically.

All EMRs selected and approved by the Saskatchewan Medical Association will have the capability of connecting with the provincial EHR to exchange information, as various systems become available within the EHR.

In 2009-10 the EMR Project:

- a total of 286 physicians in 106 clinics adopted an EMR. This is 23 per cent of eligible physicians; and,
- in conjunction with the SLRR project completed a successful pilot to electronically distribute laboratory results to EMRs.

Primary Health Care (PHC) Services

Access to primary health services is essential for individuals, families and communities.

One method of serving these groups is through primary health care teams. Technology enhances communication between members of these teams by linking providers with EMRs and the EHR.

In 2009-10 the Primary Health Care Services Project:

- completed the selection and acceptance testing process for the Primary Health Care IT Solution for the province and procured the selected IT solution.
- implemented the Primary Health Care Solution in the first three pilot teams: West Winds PHC Centre, La Ronge Medical Clinic and the three PHC Clinics in Heartland (Beechy, Kyle and Lucky Lake). Work also began to prepare for implementations at the University of Saskatchewan Student Health Centre, Family Medicine Unit in Regina and the Moose Jaw PHC clinic, as well as, all of Prairie North Health Region's PHC clinics.
- developed a readiness toolkit to assist PHC teams and their organizations to prepare for the implementation and use of the PHC IT solution.

Surgical Information System Project (SIS)

The SIS Project will replace current computerized and manual paper-based surgical services systems at six regional health authorities.

Two applications, Operating Room Manager and SmarTrack, are being integrated with existing admitting, discharge and transfer (ADT) and materials management systems to support surgical bookings, intra-operative charting, surgical supply chain management and patient-resource management. In time, SIS will support surgical waitlists by meshing with the SSCN (Saskatchewan Surgical Care Network) Surgical Registry.

In 2009-10, the Surgical Information System Project:

- finalized and approved the common provincial configuration for use at all participating health regions;

Progress in 2009-10

- implemented SIS at Prince Albert Parkland Health Region;
- completed the surgical supply implementation phase at the Cypress Health Region;
- initiated the operating room implementation phase at the Cypress Health Region; and,
- initiated the surgical supply implementation phase at Prairie North Health Region.

Canada Health Infoway Investment

Canada Health Infoway investments are directed towards improving the quality, accessibility, safety and productivity of Canada's health care system. Infoway primarily funds the development and adoption of EHRs.

Infoway is an independent, non-profit, strategic investor that receives its funding from the federal government.

SHIN leveraged $6.9 million dollars of project funding for EHR related projects in 2009-10 from Infoway.

In total, SHIN has signed agreements with Infoway for $65 million dollars. To date, SHIN has received $38.6 million dollars and will access the remaining $26.4 million dollars, primarily for EHR-Lab, Public Health Surveillance and Diagnostic Imaging projects in the future.

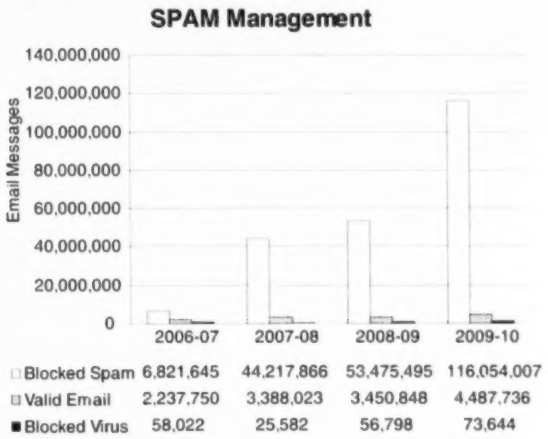
Supporting the Electronic Communication Needs of the Ministry of Health and of Health Care Providers in the Regions

Technology Support services

SHIN maintains a secure network that provides authorized health care professionals with access to clinical information systems, supports the Telehealth network and provides e-mail infrastructure to all health regions and retail pharmacies across the province.

The network filters e-mail and blocks viruses and spam (junk e-mail and unsolicited bulk messages) from user's electronic mailboxes. Spam clogs up large amounts of bandwidth, increases fraud and decreases productivity. Most Internet spam can be categorized as marketing pitches, pornography, scams and hoaxes. The effectiveness of SHIN's spam management tools is shown in Figure 3, Spam Management.

Figure 3: SPAM Management



Service Desk

The Service Desk serves the Ministry of Health and health care staff across the province by providing end-user assistance with computer problems and questions.

The Service Desk supports:

- all health regions;
- the College of Physicians and Surgeons of Saskatchewan;
- the Saskatchewan Cancer Agency;
- the Department of Family Medicine at the College of Medicine;
- the Saskatchewan Registered Nurses' Association;
- the Saskatchewan Association of Health Organizations (SAHO); and,
- the Ministry of Health.

Progress in 2009-10

As of March 31, 2010, 26,828 staff had access to the service desk; an increase of over 17 per cent, or 3,953 users, over March 31, 2009. (See Figure 4, SHIN Customer Growth).

Figure 4: SHIN Customer Growth

Of the 107,628 calls received by the Service Desk in 2009-10, just over 23,000 had to be dealt with by regional technical resources, thereby reducing the demand on resources in the health sector.

In the 2009-10 annual survey of Service Desk system users, 96 per cent of respondents rated the service provided by the Service Desk as satisfactory or better, with 64 per cent indicating they received excellent service.

Privacy and Security

SHIN is subject to *The Freedom of Information and Protection of Privacy Act* (FOIP) and *The Health Information Protection Act* (HIPA). Compliance with FOIP and HIPA are a priority and as an information management service provider, SHIN ensures that it has the highest standards in privacy protection and security of personal health information. Privacy and security provisions are integrated into all SHIN initiatives and operations.

Privacy Protection

Contracts and agreements with Saskatchewan health care organizations and service providers stipulate privacy protection as a top priority.

Project teams and program areas utilize the expertise of privacy professionals and tools such as Privacy Impact Assessments (PIAs). A PIA identifies risks and vulnerabilities associated with collection, modification, disclosure, storage, retention and disposal of personal health information. A PIA evaluates existing privacy protection and identifies alternative processes to mitigate potential privacy risks. It provides an analysis of how personal health information is managed to conform to privacy legislation, regulations, policies, procedures and best practices. The PIA process ensures strict attention is paid in the design of all SHIN projects and services to protect the confidentiality and integrity of data from accidental or deliberate threats. Accountability for privacy is incorporated to ensure every program and project complies with legislation including HIPA and FOIP.

SHIN participates as a member of Canada Health Infoway's pan-Canadian Privacy Forum on Electronic Health Record Information Governance.

Security

SHIN maintains standards, guidelines, operational technology and controls to protect against threats; ensuring the confidentiality, integrity and availability of information and services.

Security is maintained though firewalls, intrusion-detection software, virus-detection measures, server isolation, user access controls and encryption. The architecture is designed to limit, control and monitor the access of information to approved individuals.

Authentication procedures ensure that access is only available to authorized personnel. Audit trails indicate when and who has accessed data.

SHIN works closely with other provinces, the Canadian Organization of Applied Computers in Health (COACH) and Canada Health Infoway to improve information security standards.

Progress in 2009-10

As technology advances and requirements evolve, SHIN continues to evaluate technologies, emerging standards, industry best practices, and project initiatives to ensure that they adequately reflect practical goals and objectives.

Data Centre

To meet the future demands of the EHR, SHIN requires tier three data centre space. In order to meet this requirement SHIN joined SaskTel, Viterra and the Co-operators and together issued a request for proposal (RFP) in September 2009 to address the common need for tier three data centre space. The consortium is currently evaluating the responses.

Monitoring

Significant effort has been put forth to establish network and application monitoring, reporting, alerting and logging systems, enabling HISC to proactively monitor the environment, resulting in faster response times, quicker resolutions and aids in future capacity planning.

CommunityNet

CommunityNet continues to expand coverage and increase bandwidth throughout the province. Additional network connections are scheduled at health facilities around the province to expand the delivery technology solutions to health care services.

Management's Responsibilities

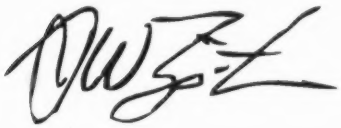
The accompanying financial statements included in the Annual Report for the year ended March 31, 2010 are the responsibility of management.

Management has prepared these financial statements in accordance with generally accepted accounting principles in Canada, consistently applied using management's best estimates and judgments where appropriate.

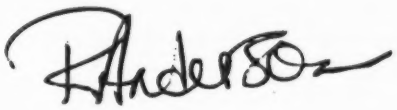
The SHIN Board is responsible for overseeing the business affairs of the corporation and also has the responsibility for approving financial statements. The Board fulfills these responsibilities by reviewing financial information prepared by management and discussing the relevant matters with management and external auditors.

Management maintains a system of internal controls to ensure the integrity of information that forms the basis of the financial statements. The internal controls provide reasonable assurance that transactions are recorded and executed in compliance with legislation and required authority; that assets are properly safeguarded; and that reliable records are maintained.

The Provincial Auditor of Saskatchewan has audited the financial statements. His report to the members of the Legislative Assembly precedes the financial statements.



Scott Livingstone
Chief Executive Officer – SHIN



Roseann Anderson, CMA
Chief Executive Officer – SHIN

2009-10 Financial Overview

The Treasury Board Corporation SHIN is responsible for setting and approving the yearly financial plan for the Corporation. For 2009-10, SHIN's financial position showed significant increase with the acquisition of tangible capital assets at $17,951,000.

For 2009-10, SHIN is reporting an annual surplus of $4,322,000, which will be described in the paragraphs below.

Revenue

The Saskatchewan Health Information Network (SHIN) received funding from multiple sources. Grants from the Saskatchewan Ministry of Health for 2009-10 were budgeted at $61,060,000; this includes SHIN's yearly grant, utilization of deferred revenue and revenue for the expenditures associated with providing operational information technology services to the ministry. Actual revenue of $45,200,000 resulted in an unfavorable variance of ($15,860,000). The variance is due largely to a grant provided to SHIN in January ($14,500,000) to be used for development of the EHR that was not required in 2009-10 resulting in increased deferred revenue. The remainder results from revenue from individual ministry branches originally budgeted for in Other Revenue ($936,000). This deferred revenue will continue to be available in 2010-11.

Canada Health Infoway provides funding to accelerate the implementation and adoption of EHR initiatives in Canada. Funding from Infoway provides for one-time investments in new technology, software, infrastructure and implementation service fees. Infoway funding in 2009-10 totaled $6,943,000 and compares to budgeted revenue in the amount of $7,669,000 resulting in an unfavourable variance of ($726,000). This variance results from projects not spending as much as anticipated to complete deliverables. Any approved funding from Infoway that was not utilized ($726,000) will continue to be available in the 2010-11 year to be used in our capital expenditure planning.

Actual interest and other revenue is $1,839,000, compared to budgeted revenue of $5,463,000. The unfavourable variance results from revenue recorded in Ministry of Health revenue budgeted here ($2,514,000), and reduced recoveries from third parties ($1,105,000).

Amortization

SHIN budgets use the cash flow method and therefore has not budgeted amortization.

Corporate Services

Corporate Services for 2009-10 reported expenditures of $1,092,000 compared to budgeted expenditures of $1,782,000 resulting in a favourable variance of $690,000. Expenditures from Corporate Services include program areas such as privacy and change management. The majority of the variance can be attributed to difficulty in recruiting skilled staff.

eHealth & Business Services

eHealth and Business Services for 2009-10 reported expenditures of $2,203,000 compared to budgeted expenditures of $3,224,000 resulting in a favourable variance of $1,021,000. Expenditures from eHealth and Business Services include program areas such as provider and client registries, business analysts and standards. The majority of the variance can be attributed to difficulty in recruiting skilled staff.

Finance

Finance reported expenditures of $1,534,000 for 2009-10 compared to budgeted expenditures of $2,264,000 resulting in a favourable variance of $730,000. Expenditures from Finance include accommodation costs, administration costs and legal services. The majority of the variance can be attributed to a reduction in software purchases.

2009-10 Financial Overview

Operations

Operations for the 2009-10 year reported expenditures of $25,969,000 compared to budgeted expenditures of $32,261,000 resulting in a favourable variance of $6,292,000. Operation costs support the core business activities of SHIN and include contracted resources for service desk, application support, knowledge management, server and network resources.

The variance results from professional services reporting a favourable variance of $3,517,000 attributed to the difficulty in recruiting skilled staff; software maintenance reporting a favourable variance of $1,997,000 attributed to renegotiating contracts and a reduction in purchasing software resulting in lower maintenance costs; and CommunityNet expenses reporting a favourable variance of $1,040,000 attributed to a reduction in charges assessed for CommunityNet lines.

Auditor's Report

To: The Members of the Legislative Assembly of Saskatchewan

I have audited the statement of financial position of the Saskatchewan Health Information Network as at March 31, 2010 and the statements of operations, change in net financial assets, and cash flows for the year then ended. The Corporation's management is responsible for preparing these financial statements for Treasury Board's approval. My responsibility is to express an opinion on these financial statements based on my audit.

I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I plan and perform an audit to obtain reasonable assurance whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation.

In my opinion, these financial statements present fairly, in all material respects, the financial position of the Corporation as at March 31, 2010 and the results of its operations and its cash flows for the year then ended in accordance with Canadian generally accepted accounting principles.

Regina, Saskatchewan
July 7, 2010

Brian Atkinson, FCA
Acting Provincial Auditor

Statement 1

Saskatchewan Health Information Network
Statement of Financial Position
as at March 31

(thousands of dollars)

	2010	2009
Financial Assets		
Due from General Revenue Fund (Note 3)	$23,805	$13,683
Receivable from Saskatchewan Health	2,844	2,226
Other Accounts Receivable	7,521	9,492
	34,170	**25,401**
Liabilities		
Accounts payable and Accrued Liabilities	6,697	5,077
Deferred Revenue (Note 11)	26,051	18,778
Obligations Under Capital Leases	872	1,216
	33,620	**25,071**
Net Financial Assets	**550**	**330**
Non-financial Assets		
Tangible Capital Assets (Note 5)	63,461	59,591
Prepaid Assets	2,648	2,416
	66,109	**62,007**
Accumulated Surplus	**$66,659**	**$62,337**

(See accompanying notes to financial statements)

Statement 2

Saskatchewan Health Information Network
Statement of Operations
for the year ended March 31

(thousands of dollars)

	2010 (Budget-Note 4)	2010	2009 (Note 13)
Revenue			
Grants from Saskatchewan Health	$61,060	$45,200	$33,762
Canada Health Infoway Funding	7,669	6,943	7,729
Interest and Other Revenue	5,463	1,839	1,395
	74,192	**53,982**	**42,886**
Expenses			
Amortization	-	14,081	11,379
Corporate Services	1,782	1,092	100
eHealth & Business Services	3,224	2,203	1,390
Finance	2,264	1,534	1,079
Ongoing Operations	32,261	25,969	19,144
Project Services	2,430	4,781	2,931
	41,961	**49,660**	**36,023**
Annual Surplus	$32,231	$4,322	$6,863
Accumulated Surplus, at beginning of year		62,337	55,474
Accumulated Surplus, at end of year		**$66,659**	**$62,337**

(See accompanying notes to financial statements)

Statement 3

Saskatchewan Health Information Network
Statement of Change in Net Financial Assets
for the year ended March 31

(thousands of dollars)

	2010	2009
Annual Surplus	**$4,322**	**$6,863**
Acquisition of Tangible Capital Assets	(17,951)	(19,387)
Amortization of Tangible Capital Assets	14,081	11,379
	(3,870)	**(8,008)**
Use of Prepaid Assets	(232)	(886)
	(232)	**(886)**
Increase/(Decrease) in Financial Assets	**$220**	**$(2,031)**
Net Financial Assets at beginning of year	**330**	**2,361**
Net Financial Assets at end of year	**$550**	**$330**

(See accompanying notes to financial statements)

Statement 4

Saskatchewan Health Information Network
Statement of Cash Flows
for the year ended March 31

(thousands of dollars)

	2010	2009
Cash Flows From Operating Activities		
Cash Receipts	$62,608	$37,220
Cash Paid To Suppliers And Others	(34,191)	(21,916)
Increase In Cash Due To Operating Activities For The Year	**28,417**	**15,304**
Cash Flows Used In Investing Activities		
Purchase Of Tangible Capital Assets	(17,951)	(19,387)
Decrease In Cash Due To Investing Activities For The Year	**(17,951)**	**(19,387)**
Cash Flows (Used In) From Financing Activities		
Net Change in Obligations Under Capital Leases	(344)	405
(Decrease)/Increase In Cash Due To Financing Activities For The Year	**(344)**	**405**
Net Increase/(Decrease) In Due From General Revenue Fund	**10,122**	**(3,678)**
Due From General Revenue Fund, Beginning of The Year	**13,683**	**17,361**
Due From General Revenue Fund, End of The Year	**$23,805**	**$13,683**

(See accompanying notes to financial statements)

Notes to the Financial Statements

Saskatchewan Health Information Network
Notes to the Financial Statement
for the year ended March 31, 2010

(In thousands of dollars)

1. Description of Business

The Saskatchewan Health Information Network (SHIN) was established as a Treasury Board Crown Corporation by Order in Council 581/1997 under the provisions of *The Crown Corporations Act, 1993* effective August 19, 1997.

SHIN was created to design, implement, own, operate, and manage a provincial health information network. SHIN's purpose is to foster the development of the health information technology sector, to foster re-engineering of health delivery processes and to protect health information as a strategic resource.

2. Significant Accounting Policies

Pursuant to standards established by the Public Sector Accounting Board (PSAB), SHIN is classified as another government organization. SHIN uses Canadian generally accepted accounting principles applicable to governments. The following principles are considered to be significant:

a) The Basis of Accounting

The financial statements are prepared on the accrual basis of accounting.

b) Revenue

Revenues are recognized in the period in which the transactions or events occurred that gave rise to the revenues.

c) Expenses

Expenses represent the cost of resources consumed during the year for operations. Expenses include provision for the amortization of tangible capital assets.

d) Tangible Capital Assets

Tangible capital assets are recorded at cost and are amortized over their useful life. Amortization is recorded, commencing with the quarter after the assets are placed into service, on a straight-line basis at the annual rates set out below:

Desktop Computer Hardware	**33%**
Computer Software	**33%**
Network Hardware, Software & System Development costs	**20%**
Office Equipment	**20%**
Office Furniture	**10%**

e) Non-financial assets

Tangible capital and other non-financial assets are accounted for as assets because they can be used to provide services in future periods. These assets do not normally provide resources to discharge liabilities unless they are sold.

Notes to the Financial Statements

f) Measurement Uncertainty

The preparation of financial statements in accordance with Canadian generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amount of financial assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amount of revenues and expenses during the reporting period. These estimates are reviewed periodically, and, as adjustments become necessary, such adjustments are reported in earnings in the period in which they become known.

3. Due from the General Revenue Fund

SHIN's bank account is included in the Consolidated Offset Bank Concentration arrangement for the Government of Saskatchewan.

Earned interest is calculated and paid by the General Revenue Fund on a quarterly basis into the Corporation's bank account using the Government's thirty-day borrowing rate and SHIN's average daily account balance. The Government's average thirty-day borrowing rate in 2010 was 0.27% (2009 - 1.95%).

4. Budget Approval

SHIN's budget is approved by the Board.

5. Tangible Capital Assets

	2010							2009
	Desktop Computer Hardware & Software	Computer Network Hardware	Licensed or Multiple Application Software	Office Furniture & Equipment	System Development Costs	Work in Progress System Development	Total	Total
Opening Cost	$ 1,074	$ 9,088	$ 7,910	$ 1,217	$ 76,168	$ 19,356	$114,813	$ 95,426
Additions During the Year	-	525	1,688		47	15,691	17,951	19,387
WIP moved into Production	-	-	-	-	26,722	(26,722)	-	-
Disposals	-	-	-	-	(574)	-	(574)	-
Closing Cost	$ 1,074	$ 9,613	$ 9,598	$ 1,217	$ 102,363	$ 8,325	$132,190	$ 114,813
Opening Accumulated Amortization	1,074	6,584	6,967	716	39,881	-	55,222	43,843
Annual Amortization	-	345	294	142	13,300	-	14,081	11,379
Disposals	-	-	-	-	(574)	-	(574)	-
Closing Accumulated Amortization	$ 1,074	$ 6,929	$ 7,261	$ 858	$ 52,607	-	$ 68,729	$ 55,222
Total Tangible Capital Assets	**-**	**$ 2,684**	**$ 2,337**	**$ 359**	**$ 49,756**	**$ 8,325**	**$ 63,461**	**$ 59,591**

6. Maintenance Agreements for Software

SHIN has several agreements with software vendors to provide maintenance for software that has been purchased by SHIN. A total of $7,100 was spent in 2010 (2009 - $5,885) and $2,776 (2009 - $767) is commited for the current year and will likely continue into the future.

Notes to the Financial Statements

7. Related Parties

These financial statements include routine transactions with related parties. SHIN is related to all Saskatchewan Crown agencies such as ministries, corporations, boards and commissions under the common control of the Government of Saskatchewan. Related party transactions to March 31, 2010, include the following:

	2010	2009
Revenue		
Regional Health Authorities	1,006	561
Health Quality Council	1	7
Saskatchewan Association of Health Organizations	85	197
Accounts Receivable		
Regional Health Authorities	307	538
Health Quality Council	-	7
Saskatchewan Association of Health Organizations	51	191
Expenditures		
Regional Health Authorities	2,246	872
Health Quality Council	-	-
Ministry of Government Services	1,731	2,184
Saskatchewan Association of Health Organizations	27	195
Saskatchewan Cancer Agency	-	-
Saskatchewan Opportunities Corporation	851	568
SaskTel	2,371	2,141
Saskatchewan Workers' Compensation Board	2	18
Accounts Payable		
Regional Health Authorities	110	446
Ministry of Government Services	165	191
Saskatchewan Association of Health Organizations	-	1
SaskTel	875	235

Other transactions with related parties and amounts due to/from them are described separately in the financial statements and the notes thereto.

Routine operating transactions with related parties are recorded at the rates charged by those organizations and are settled on normal trade terms. In addition, SHIN pays Provincial Sales Tax to the Saskatchewan Ministry of Finance on all its taxable purchases.

The Ministry of Health provides management and technical services to SHIN without charge.

8. Financial Instruments

SHIN's financial instruments include due from the General Revenue Fund, accounts receivable and accounts payable. The carrying amount of these instruments approximates fair value due to their short-term nature. These instruments have no interest or credit risk.

Notes to the Financial Statements

9. Capital Leases

SHIN currently has six capital leases on equipment with certain Canadian financial service companies. The minimum annual lease payments for the capital leases over the next four years is as follows:

2011	458
2012	306
2013	216
2014	6
Total Minimum Lease Payments	986
Less Amount Representing Interest	(52)
Total Obligation	934
Less Expense Related to Maintenance	(62)
Balance of the Obligation	872

10. Operating Leases

SHIN has entered into a lease agreement with Saskatchewan Opportunities Corporation, a related party, for office space, which expires on April 30, 2014. The operating lease payments for the following five years are as follows:

2011	819
2012	819
2013	819
2014	819
2015	68
Total Lease Payments	3,344

SHIN has entered into several lease agreements with a financial services company for equipment. The operating lease payments over the next two years are as follows:

2011	114
2012	8
Total Lease Payments	122

Notes to the Financial Statements

11. Deferred Revenue

As of March 31, 2010, SHIN's deferred revenue balance is $26,051 (2009 - $18,778). Deferred revenue is only used once all project planning and due diligence (including stakeholder readiness) is completed and other revenue opportunities (such as Canada Health Infoway) are maximized. The deferred revenue consists of unspent amounts provided by the Ministry of Health and Canada Health Infoway, which are commited to developing information technology systems that support frontline delivery, improve access, quality and efficiency of health care.

Deferred Revenue	April 1, 2009	2009-10 Expenditures	Amounts Received	March 31, 2010
First Ministers Funding				
ESP Staff Scheduling Project	**$ 783**	**$ 23**	**-**	**$ 660**
Total First Ministers Funding	$ 783	$ 123	-	$ 660
Other Deferred Revenue				
Canada Health Infoway	$ 4,914	$ 1,011	$ -	$ 3,903
Saskatchewan Health Pay Forward	10,070	5,820	14,500	18,750
Acute and Emergency System Enhancements	424	-	-	424
Community System Enhancements	-	-	1,121	1,121
Drug Plan System Enhancements	695	187	-	508
Physician Payment System Enhancements	60	-	500	560
Diagnostic Imaging Decision Support	187	187	-	-
Primary Health Care Information sites	1,508	1,508	-	-
Canadian Health Outcomes for Better Information and Care	12	12	-	-
Telehealth Initiatives	125	-	-	125
Total Other Deferred Revenue	$ 17,995	$ 8,725	$ 16,121	$ 25,391
Total Deferred Revenue	**$ 18,778**	**$ 8,848**	**$ 16,121**	**$ 26,051**

12. Commitments

As of March 31, 2010, SHIN is commited to developing information technology applications totalling $6,952 (2009 - $4,591) and technical support for internal and regional IT systems totalling $22,542 (2009 - $2,111). The following table outlines the funds dedicated for capital and operational expenditures.

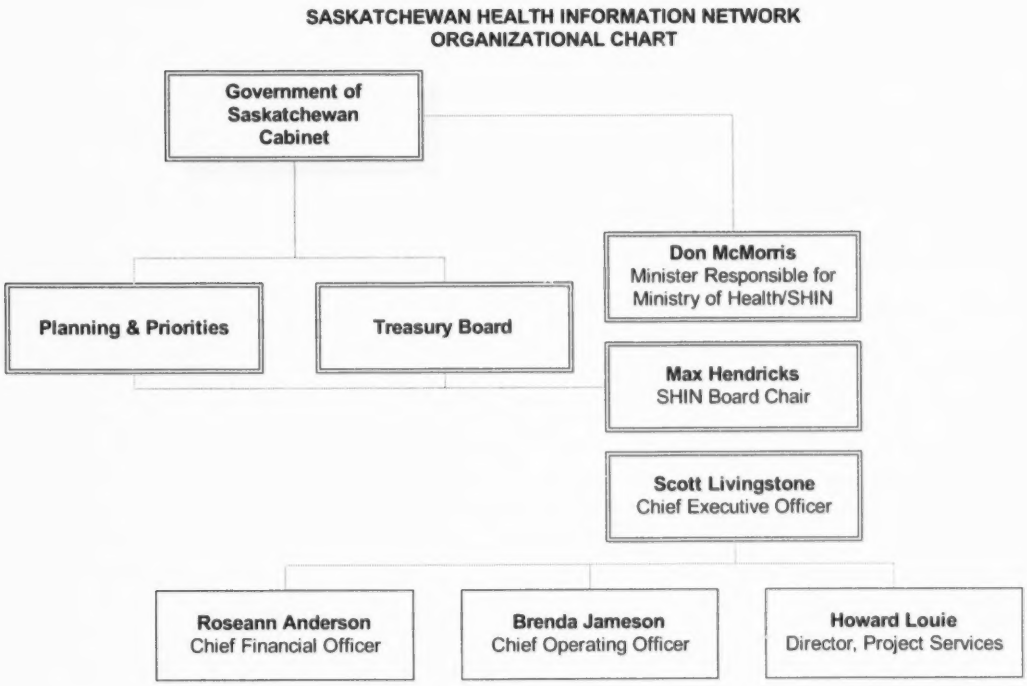
Commitments	Total Budgeted Costs	Total Expenditures March 31, 2010	Total Commitments March 31, 2010
Capital Projects	$ 10,330	$ 3,378	$ 6,952
Operational Services	31,111	8,569	22,542
Total Commitments	**$ 41,441**	**$ 11,947**	**$ 29,494**

13. Comparative Figures

Prior year figures have been reclassified to conform to present year presentation.

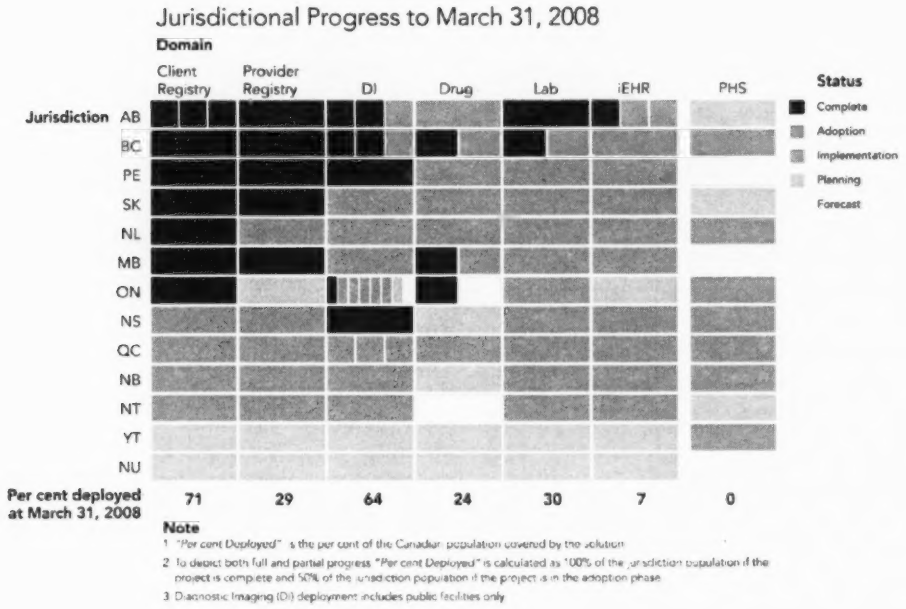
Appendix I

Organizational Structure

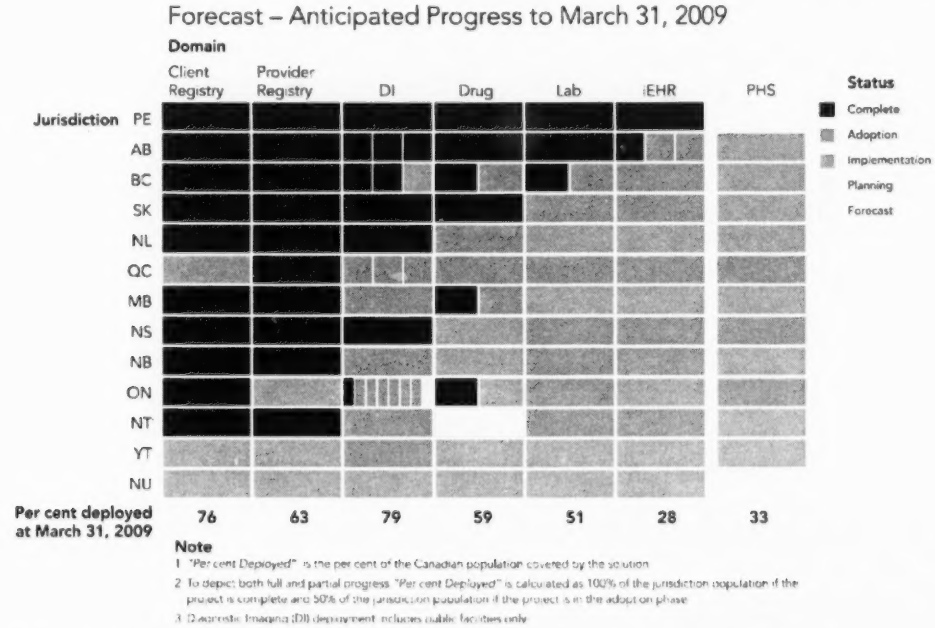


Appendix II

Canada Health Infoway ranking of Canadian provinces progress to March 31, 2008



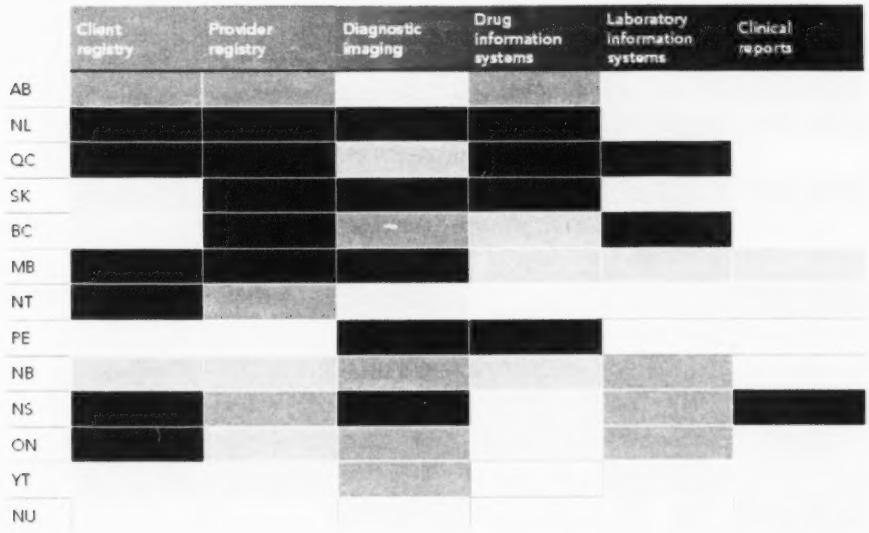
Canada Health Infoway ranking of Canadian provinces anticipated progress to March 31, 2009



Appendix II Source – Canada Health Infoway – Building a Healthy Legacy Together

Appendix III

Standards Conformance by Province



Legend for Standards Conformance by Province

Status	Note
Conformant[1]	Jurisdiction is using pan-Canadian standards as part of a live solution or has a pan-Canadian standards-capable solution in place.
Partially conformant[2]	Jurisdiction is using some aspects of the pan-Canadian standard as part of a live solution or has some aspects of a pan-Canadian standards-capable solution in place. Additional work may be planned or underway.
Indicated commitment	The jurisdiction has indicated that it will implement the standard.
Solution development predates pan-Canadian standards	Jurisdiction has an existing solution that pre-dated the *Draft for Use* pan-Canadian standard.
Not applicable	For the solution's design or deployment the use of the standard is not applicable or not started.

Appendix III Source – Canada Health Infoway 2009-10 Annual Report

Appendix IV

Canada Health Infoway Reports on Electronic Health Record Availability in Canada

A large amount of information exists that relates to each Canadian's overall health care and health care status. Some of this information has significant value to physicians and other health care professionals when kept over a long period of time. Other information is fleeting. Infoway, in consultation with health care providers, has determined the most valuable information that needs to be kept for Canadians over their lifetimes. As well, in conjunction with the information technology community, Infoway has also determined what is needed to store and use that data in a way that would allow patient-authorized health providers to have access to the right information in a way that is both private and secure.

From these consultations, Canada Health Infoway has established the definitions and measures of the basics for an EHR. They include:

1. Client registry – Percentage of the jurisdiction's population that has been uniquely identified in a client registry repository.
2. Provider registry – Percentage of the jurisdiction's physicians that have been uniquely identified in a provider registry repository.
3. Diagnostic images – Percentages of the jurisdiction's public facility diagnostic images that are in digital form (i.e., filmless) in a repository and available for access by authorized physicians.
4. Laboratory test results – Percentage of the jurisdiction's population whose laboratory test results are in a jurisdictional repository and have been made available in electronic form for access by authorized physicians.
5. Drugs dispensed – Percentage of the jurisdiction's population whose drug dispensing profiles have been made available in electronic form in a repository for access by authorized clinicians.
6. Clinical reports/immunization – Percentage of the jurisdiction's population who have at least one hospital clinical report or their immunization record available in electronic form in a repository for access by authorized physicians outside of the hospital.

When all six elements are present, Infoway considers the core information for a complete EHR to be available. Available means the information has been electronically stored in a database accessible by authorized health care professionals.

See related information on page 37.

Appendix V

Acronyms

AVERT	Application Verification Toolkit
CDM	Chronic Disease Manager
CEO	Chief Executive Officer
CeRx	pan-Canadian drug information system message standard
CIO	Chief Information Officer
COACH	Canadian Organization of Applied Computers in Health
COPD	chronic obstructive pulmonary disease
CT scan	Computed Axial Tomography (also known as a CAT scan)
DIS	Drug Information System
EHR	electronic health record
EMR	physician electronic medical record
HISC	Health Information Solutions Centre
HQC	Health Quality Council
HSN	health services number
ICS	Integrated Clinical Systems
LIMS	Laboratory Information Management System
LIS	Laboratory Information System
MRI	magnetic resonance imaging
OIPC	Office of the Saskatchewan Information and Privacy Commissioner
PACS	Picture Archiving and Communication System
PAQC	Patient Access to Quality Care Project
PHI	personal health information
PIA	Privacy Impact Assessment
PIP	Pharmaceutical Information Program
PRS	Provider Registry System
RIS/PACS	Radiology Information System Picture Archiving and Communication System
SAHO	Saskatchewan Association of Health Organizations
SDCL	Saskatchewan Disease Control Laboratory (formerly known as the Provincial Laboratory)
SHIN	Saskatchewan Health Information Network
SIS	Surgical Information System
SLRR	Saskatchewan Laboratory Results Repository Project
SMA	Saskatchewan Medical Association
SSCN	Saskatchewan Surgical Care Network (Surgical Registry)

Saskatchewan Health Information Network
Payee List
For the Year Ended March 31, 2010
(Unaudited)

Supplier Payments
Listed payees who received $50,000 or more for the provision of goods and services, including office supplies, communications, contracts and equipment.

(thousands of dollars)

Vendor	Total Cost
SAIC Canada	7,468
IBM Canada Ltd.	4,052
CGI Information Systems and Management Consultants	2,840
Inverness Consulting	2,816
Sun Microsystems of Canada, Inc.	2,813
Paradigm Consulting Group Inc.	2,569
SaskTel	2,371
Minister of Finance - SPM	2,037
Solvera Solutions	2,000
Philips Medical Systems Canada	1,613
Regina Qu'Appelle Regional Health Authority	1,516
SCC Soft Computer	1,486
Elite Information Systems and Consulting Inc.	1,329
Eclipsys	1,269
Hewlett-Packard Financial Services Canada Company	1,083
Med Access	1,016
Sierra Systems Group Inc.	886
Innovation Place	851
Microsoft Licensing, GP	829
Dell Canada Inc.	825
Cerner Canada Ltd.	813
RWI Informatics Inc.	739
MacPherson Leslie and Tyerman LLP Lawyers	678
Technology Management Corporation	643
Initiate Systems Canada Inc.	625
Oracle Corporation Canada Inc.	617
GE Healthcare IITS Canada	578
BC Ministry of Finance	554
CA Canada Company	508
Momentum Healthware Inc.	499
Tandberg Canada Inc.	384
Bal Global Finance Canada Corp	368
Horizon	347
Lab Ware Inc.	328
Picis, Inc.	304

	(thousands of dollars)
MIQS, Inc.	242
Microsoft Canada Co.	218
First Data Bank Inc.	211
Dell Financial Services Canada	179
Interactive Business Systems Inc.	177
Prairie North Regional Health Authority	155
Upside Software Inc	154
Medicalis Corp.	149
Citrix Systems Inc.	132
Orion Health Limited	128
Develus Systems Inc. dba Procura	121
Softchoice Corporation	96
Oracle Canada ULC	95
Prince Albert Parkland Regional Health Authority	87
Sunrise Regional Health Authority	85
Healthvision Software and Solutions	83
Solutions On Site	82
SAS Institute (Canada) Inc.	80
Telus Communications	79
US Bank Canada	77
DS Nursing Solutions	72
Sun Electric (1975) Ltd	70
Canada Revenue Agency	68
Chen, Fengyan (Rhonda)	67
Access Communications	66
Canadian Pharmacists Association	66
Five Hills Regional Health Authority	64
Mamawetan Churchill River Regional Health Authority	61
Gordon Point Informatics Ltd.	57
Total	53,174